

#2985

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PATENT

Issue Batch Number: 054

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Belghuith et al.

Confirmation No: Belghuith et al.

Serial No.: 09/383,318

Group Art Unit: 1652

Filed: August 26, 1999

Examiner: Slobodyansky

Confirmation No: 6411

For: Polypeptides Having Glucose Isomerase Activity And Nucleic Acids Encoding Same

SUBMISSION OF FORMAL DRAWINGS

Commissioner for Patents
Washington, DC 20231

Sir:

Applicants submit herewith 5 sheets of formal drawings, containing Figures 1, 2, 3, 4A, 4B, 5 for the above-captioned application. The formal drawings are being filed in response to the request contained in the Attachment to the Notice of Allowance and Issue Fee Due, mailed November 6, 2001, and should be substituted for the corresponding sheets of informal drawings of the originally filed application.

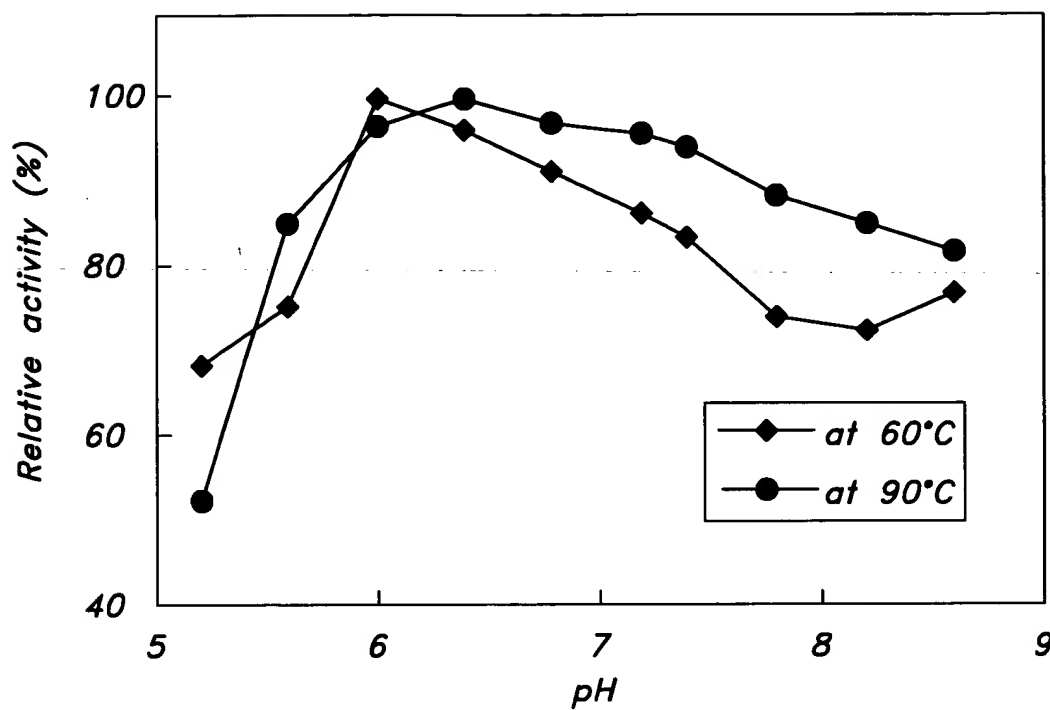
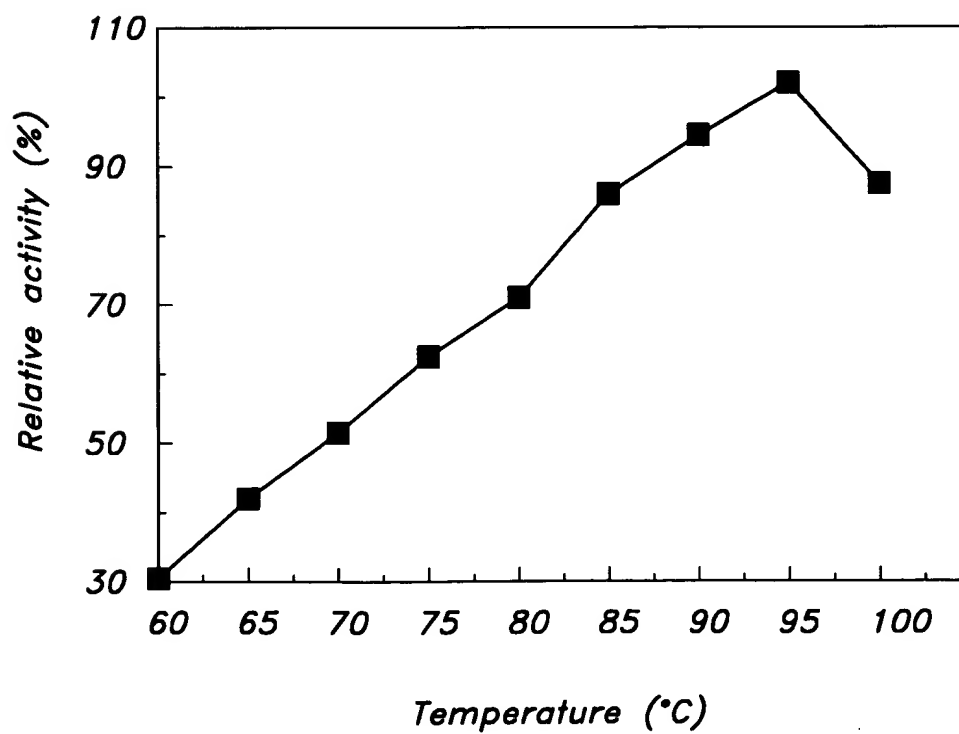
Respectfully submitted,

Date: February 1, 2002

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**FIG 1****FIG 2**

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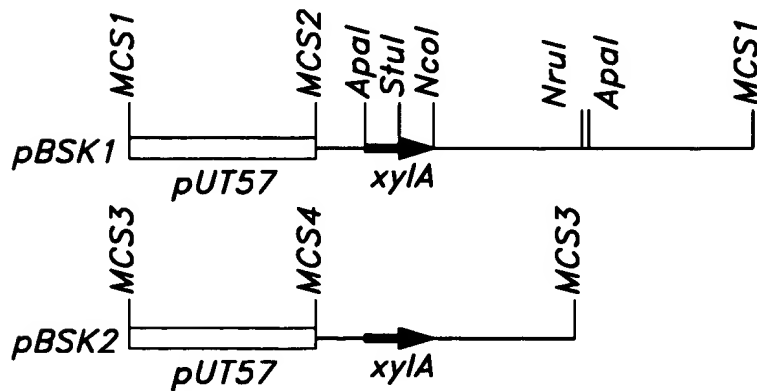
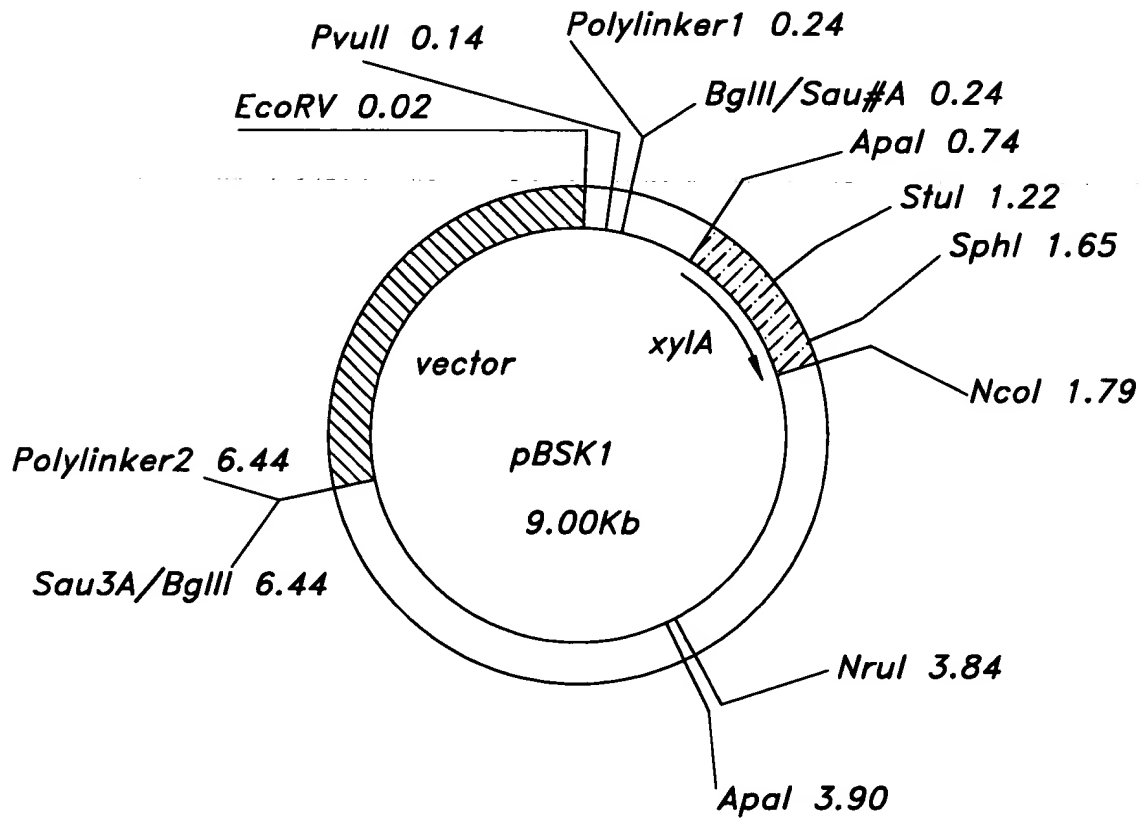


FIG 3

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CACGAGCGCCTGGTGGACTGGGTGGACGAGTCCACACCGACGACGAGCGGACCCTCGGCTGCTGACATCGGCTCTCCCTCTTTTCCCGGCTCAGGGG 100

CTCTGACCTGCGGCTTACGCTATGCCGGGCCTGTGGGCCCCGGGGTGCGGACCGCGCCCGCCCGCTTCTGCTTCCGCGTTCCCTTCCAGGACGGGG 200

TGCGCATACTAATTGTAAATCGCCCTGACGAAATAGTCGCAAGCGAAGAGCGCGGCATGAACACTACGACCCACCCCGGACAGAGTTACCTT 300

M N Y Q P T P E D R F T F 13

CGGCCTGTGGACCGTGGCTGGCAGGGCGGACCCCTTCGGCGACGCCACGCGTCCCGCCCTCGACCCGGTGGACGTGACGCGGTGGCCGAACCTGGGC 400
G L W T V G W Q G R D P F G D A T R P A L D P V D V Q R L A E L G 46

GCCTACGGAGTGACCTTCCACGACGACGACCTGATCCCTTCGGGGCGTCCGACACCGAGCGGCGGACGTCAAGCGGTTCGCTCAGGCGCTCGACG 500
A Y G V T F H D D D L I P F G A S D T E R E A H V K R F R Q A L D 79

CGACCGGCATGACCGTTCCGATGGCCACCACCAACCTCTTACCCACCCCGTCTTCAAGGCAGGCGCGTTACCGCCAAACGCGCAGTGCGCCGTTA 600
A T G M T V P M A T T N L F T H P V F K A G A F T A N D R A V R R Y 113

GCCCCGCGAAGACCATCCGGAACATCGATCTCGCGTTCGAGCTGGGCGCCAAAGTCTACGTGCGCTGGGCGGCGCGGAGTCCGGTGCC 700
A L R K T I R N I D L A V E L G A K V Y V A W G G R E G A E S G A 146

GCCAAGGACGTGCGTGGCGCCCTGGACCGCATGAAGGAGGCCTTCGACCTGCTCGGCGAGTACGTACCTCGAGGGGTACGACATCCGGTTCGCCATCG 800
A K D V R A A L D R M K E A F D L L G E Y V T S Q G Y D I R F A I 179

FIG 4A

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AGCCCAAGCCGAACGAGCCGCGCGGCGACATCCTGCTGCCCCACCATCGGCCACGGCTCGCCTTCATCGAGCGCCTGGAGCGCCCCGAGCTGTCCGGTGT
E P K P N E P R G D I L L P T I G H A L A F I E R L E R P E L Y G V 900 213

CAACCCCGAGGTGGGCCACGAGCAGATGGCCCGCCTGAACCTCCCGCACGGCATCGCGCAGGCTCTGTGGCGGGCAAGCTCTTCCACATCGACCTCAAC
N P E V G H E Q M A G L N F P H G I A Q A L W A G K L F H I D L N 1000 246

GGCCAGTCGGGATCAAGTACGACCAGGACCTGCGCTTCGGCGCCGGTGACCTGGCGCCGCTTCTGGCTGGTCGACCTGCTGGAGAGCGCGGCTGGG
G Q S G I K Y D Q D L R F G A G D L R A A F W L V D L L E S A G W 1100 289

AGGGTCCGCGCCACTTCGACTTCAAGCCCCCGGACCGAGGACATCGACGGCGTGTGGGCCTCCGCGCCGGTGATCGGCAACTACCTGATCCTGAA
E G P R M F D F K P P R T E D I D G V W A S A A G C M R N Y L I L K 1200 313

GGAGCGCGCGCGCCTTCGTCGCGACCCGAGGTCCAGCGCGCCCTGGCTGCCGCCCGGCTCGACCGCTCGCCGAGCCACCGCGGCGGACGCGCCTG
E R A A A F R A D P E V Q E A L R A A R L D Q L A E P T A A D G L 1300 346

CAGGCCCTGCTGGCGGACCGCGGTACGAGGACTTCGACGTGGACGGCGCGCGCGGATGGCCTTCGAGCGCCTCGACAGGCTCGCCATGGACC
Q A L L A D R T A Y E D F D V D A A A R G M A F E R L D Q L A M D 1400 379

ACCTGCTGGGCGCGCGGCTGAACCGGGCGACGAGGGGTACGGCGGTGATCTCCCTGCGTCAATGAGGGGGTGCTGGCGCGCTCGAGCGCGGCC
H L L G A R G *** 1500 386

GGCCCCATCGTGTGCTCTCCCGGGCGCGGTGTGGGGCGTGTGC 1546

FIG 4B

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XYLA-STRSK	99-A ₁₀₀ -G-A ₁₀₂ -FTANDR-A ₁₀₉ -VRR-113
XYLA-STROL	99-D ₁₀₀ -G-G ₁₀₂ -FTANDR-D ₁₀₉ -VRR-113
XYLA-STRVO	99-D ₁₀₀ -G-G ₁₀₂ -FTANDR-D ₁₀₉ -VRR-113
XYLA-ACTMI	99-D ₁₀₀ -G-G ₁₀₂ -FTSNDR-S ₁₀₉ -VRR-113
XYLA-AMPSP	99-D ₁₀₀ -G-G ₁₀₂ -FTSNDR-S ₁₀₉ -VRR-113
XYLA-THETH	99-D ₁₀₀ -G-A ₁₀₂ -FTSNDR-W ₁₀₉ -VRR-113

FIG 5